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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,708	11/05/2003	Ju-Chien Chiang	N1085-00195 [TSMC2003-024	7074
54657 DUANE MORI	7590 08/21/200 PICITE	/2007	EXAMINER	
IP DEPARTME	ENT (TSMC)		MARKOFF, ALEXANDER	
30 SOUTH 17TH STREET PHILADELPHIA, PA 19103-4196			ART UNIT	PAPER NUMBER
	,		1746	
			MAIL DATE	DELIVERY MODE
			08/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)				
	10/701,708	CHIANG ET AL.				
Office Action Summary	Examiner	Art Unit				
	Alexander Markoff	1746				
The MAILING DATE of this communication ap	ppears on the cover sheet with the	correspondence address				
Period for Reply		•				
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING ID.  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period.  - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION  136(a). In no event, however, may a reply be time  I will apply and will expire SIX (6) MONTHS from the, cause the application to become ABANDONE	N. mely filed n the mailing date of this communication. ED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on <u>07 June 2007</u> .						
2a)⊠ This action is <b>FINAL</b> . 2b)☐ Thi	This action is <b>FINAL</b> . 2b) This action is non-final.					
<i>,</i> —	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under	Ex parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.				
Disposition of Claims						
4)⊠ Claim(s) <u>19-33</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>19-33</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/	or election requirement.					
Application Papers						
9)☐ The specification is objected to by the Examin	er.					
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) ☐ The oath or declaration is objected to by the E	xaminer. Note the attached Office	e Action or form PTO-152.				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:						
1.☐ Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
	•					
Attachment(s)	·	•				
1) Notice of References Cited (PTO-892)	4) Interview Summary					
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)	Paper No(s)/Mail D  5) Notice of Informal F					
Paper No(s)/Mail Date 6) Other:						

### **DETAILED ACTION**

# Claim Rejections - 35 USC § 112

- 1. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 2. Claims 19-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 19-33 are indefinite because the tem "integrated surface substrate" does not have proper antecedent basis (claims 19, 24 and 29)

Claims 20, 21, 22 and 24-33 are indefinite because it is not clear how the referenced "application" can comprise chemicals. The referenced application is a method step of application of chemical compositions. How can a method step comprise a chemical?

Claims 23, 27 and 32 are indefinite because it is not clear how the substrate be contacted with the "application". It is again noted that the referenced application is a method step of application of chemical compositions.

Claims 24-33 are indefinite because the scope of the limitation "consisting essentially of" is not clear because claims 28 and 33 require additional manipulative steps effecting the cleaning.

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## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 4. Claims 19-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Barnett et al (US 2005/0070120).

Barnett et al teaches a method as claimed. See entire document, especially parts [0030], [0043-0044].

The physical manipulative steps of the method of Barnett et al are the same as the steps of the claimed method.

5. Claims 19-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Brask et al (US 2005/0048794).

Brask et al teach a method as claimed. See entire document, especially part [0008], [0022] and [0023].

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The manipulative steps of the method of Brask et al are the same as the steps of the claimed method.

6. Claims 19-33 are rejected under 35 U.S.C. 102(b) as being anticipated by of the Handbook of Semiconductor Wafer Cleaning Technology (pages 15-24, 44-56, 120-128 and 141-142).

The Handbook of Semiconductor Wafer Cleaning Technology, which shows that the cleaning sequence and other limitations of the claimed method were conventional in the art. See the cited pages, especially pages 126-128 and 141-142.

## Response to Arguments

- 7. The Declaration filed on 11/03/06 under 37 CFR 1.131 has been again considered but is ineffective to overcome the Barsk et al and Barnett et al references.
- 8. The evidence submitted is insufficient to establish a reduction to practice of the invention in this country or a NAFTA or WTO member country prior to the effective date of the Barsk et al and Barnett et al references. The submitted evidences are not commensurate in scope with the instant claims. The submitted evidence do not demonstrate the sequence of the claimed steps, temperatures, concentrations of the reagents.
- 9. Applicant's arguments filed 06/05/07 have been fully considered but they are not persuasive. The applicants rely on the Declaration filed on 11/03/06 under 37 CFR 1.131. The referenced Declaration is not sufficient to overcome the rejections for the reasons provided above.

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10. It is noted that the applicants allege that the new claims are not anticipated by the previously applied documents and by The Handbook of Semiconductor Wafer Cleaning Technology. The applicants provided no reasoning to support the allegation. The examiner disagrees. In contrast to the applicants unsupported statement the applied art shows that the claimed method was conventional in the art.

#### Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 571-272-1304. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alexander Markoff Primary Examiner Art Unit 1746

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